

**Referral Agency Response Report****Project Name:** 8008 Y Camp Rd**Project File #:** LE2024-011**Date Sent:** 04/15/2024**Date Due:** 04/29/2024

<b>Agency</b>	<b>Date Received</b>	<b>Agency Response</b>	<b>Response Resolution</b>
Addressing Analyst	04/15/2024	Verbatim Response: No Comment.	No action required.
AT&T Long Distance - ROW	04/24/2024	Summary of Response: There should be no conflicts with the AT&T Long Lines.	Comments provided to applicant.
Black Hills Energy		No Response Received.	
Building Services	04/19/2024	Verbatim Response: Permit is required. Please visit Douglas County's website for requirements and contact 303-660-7494 if you have any questions.	Comments provided to applicant.
CenturyLink		No Response Received.	
Colorado Department of Transportation CDOT-Region # 1		No Response Received.	
Comcast		No Response Received.	
CORE Electric Cooperative	04/25/2024	Verbatim Response: CORE Electric Cooperative approves and supports the Location and Extent. CORE has been communicating with Jeff Vaughn at the Sheriff's department on possible future colocation on the tower. CORE is proposing 3 antennas', two for radio communications and one for AMI metering.	No action required.
Denver Water Board		No Response Received.	
Douglas County Health Department	04/26/2024	Verbatim Response: DCHD has no comments.	No action required.
Engineering Services	04/29/2024	Summary of Response: See letter attached for detail.	
Jefferson County Planning and Zoning		No Response Received.	
North Fork Fire Protection District		No Response Received.	
Office of Emergency Management	04/16/2024	Verbatim Response: OEM has no concerns with this project.	No action required.

**Referral Agency Response Report****Project Name:** 8008 Y Camp Rd**Project File #:** LE2024-011**Date Sent:** 04/15/2024**Date Due:** 04/29/2024

Agency	Date Received	Agency Response	Response Resolution
Pike National Forest-US Forest Service	04/29/2024	<p>Verbatim Response: If further information is needed, please contact:</p> <p>Nathanael Berry Realty Specialist Forest Service Pike National Forest, South Platte Ranger District c: 720-602-8438 (preferred) p: 303-275-5645 f: 303-275-5642 Nathanael.Berry@usda.gov 30403 Kings Valley Drive, Suite 2-115 Conifer, CO 80433</p>	Comments provided to applicant.
Pike National Forest-US Forest Service	04/29/2024	<p>Verbatim Response: We support the project of constructing a 185' public safety tower for radio communications along the South Platte River. The tower would provide valuable and timely communication in an area plagued by poor radio reception.</p> <p>We ask that a survey be completed or consulted to ascertain where the boundaries between Denver Water and National Forest System (NFS) lands lay. We also ask that no guy wire or encroachments are built on NFS lands.</p> <p>If possible, please consider the effect to the viewshed along the river corridor. All things being equal, we would prefer a location that does not take away from the viewshed of the South Platte River.</p>	Comments provided to applicant.
Sheriff's Office		No Response Received.	
Sheriff's Office E911		No Response Received.	
Wildfire Mitigation		No Response Received.	
Xcel Energy-Right of Way & Permits	04/16/2024	Summary of Response: Xcel Energy has no apparent conflict.	Comments provided to applicant.

## Eric Pavlinek

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**From:** annb cwc64.com <annb@cwc64.com>  
**Sent:** Wednesday, April 24, 2024 2:53 PM  
**To:** Eric Pavlinek  
**Cc:** Pam Choy (pc2914@att.com); duanew cwc64.com; jt cwc64.com  
**Subject:** SY Camp Rd Sedalia, Colorado Douglas County eReferral #LE2024-011  
**Attachments:** SY Camp Rd Sedalia, Colorado.jpg

Hi Eric,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near SY Camp Rd Sedalia, Colorado. The Earth map shows the project area in red and based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.

Please feel free to contact us with any questions or concerns.

Ann Barnowski  
Clearwater Consulting Group Inc  
120 9th Avenue South  
Suite 140  
Nampa, ID 83651  
Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

-----Original Message-----

From: epavlinek@douglas.co.us <epavlinek@douglas.co.us>  
Sent: Monday, April 15, 2024 8:52 AM  
To: annb cwc64.com <annb@cwc64.com>  
Subject: Douglas County eReferral (LE2024-011) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:  
<https://apps.douglas.co.us/planning/projects/Login.aspx>

Project number: LE2024-011

Project title: 8008 Y Camp Road - Location and Extent

Project Description: Douglas County Sheriff's Office requests L & E approval for construction of a 185-ft public safety communications tower.

This referral will close on Monday, April 29, 2024.

If you have any questions, please contact me.

Sincerely,





Deckers Rd

Deckers

PROJECT AREA

67





04/26/2024

Eric Pavlinek  
100 Third St.  
Castle Rock, CO 80104

RE: LE2024-011

Dear Eric Pavlinek,

Thank you for the opportunity to review and comment on the Douglas County Sheriff's Office requests construction of a 185-ft public safety communications tower. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with applicable environmental and public health regulations. After reviewing the application, DCHD has no comments.

Sincerely,

Jacob Deitz

cc: Caitlin Gappa



**REFERRAL RESPONSE REQUEST – LOCATION AND EXTENT**

Date sent: April 15, 2024

Comments due by: April 29, 2024

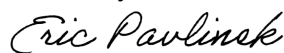
**Project Name:** 8008 Y Camp Road – Location and Extent  
**Project File #:** LE2024-011

**Project Summary:** The applicant, Douglas County Sheriff’s Office, requests approval of a Location and Extent (L & E) to construct a 185-ft public safety communication tower.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

<input type="checkbox"/> No Comment	
<input type="checkbox"/> Please be advised of the following concerns:  _____	
<input type="checkbox"/> See letter attached for detail.	
<b>Agency:</b>	<b>Phone #:</b>
<b>Your Name:</b>	<b>Your Signature:</b>
<i>(please print)</i>	<b>Date:</b>

A public hearing on this request will be held before the Douglas County Planning Commission on Monday, **May 6, 2024, at 6:00 pm.** See the County website or contact the Planning Department for instructions on how to participate.

Sincerely,  
  
 Eric Pavlinek, Project Planner  
 Enclosure



# MEMORANDUM

To: Eric Pavlinek, Principal Planner

CC: Captain Troy McCarty

From: Jacob Gabel, Development Review Engineer

Date: 4/29/2024

**RE: 8008 Y Camp Rd: DV2024-183**

Initial Submittal: 4-16-2024  
1st Engineering response letter: 4-29-2024

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The Douglas County Department of Public Works Engineering has reviewed the 9474 N Rampart Range Rd Solar Project and has the following comments:

## General

1. Please note that neither a Phase III Drainage Report nor Construction Plans will be needed for Engineering.
2. Please note that in connecting the tower to existing infrastructure, that if any of the following are crossed, then a plan and profile will be needed: paved road, stormwater lines/culverts, Traffic fiber, 100-yr floodplains.
3. Please add the number of anticipated trips to the site to the project narrative.

## GESC

4. GESC Plans will be required prior to construction.

## Opinion of Probable Cost (OPC)

5. An OPC will be required, please see Appendix I of the DC GESC Manual for reference as to its format.

## Floodplain

6. It appears that Y Camp Rd is adjacent to a 100-yr floodplain. Please determine the limits of the floodplain and if any work is done in the floodplain, then a Floodplain Development Permit will be required.

With the next submittal, please enclose a written response to these comments. Please let me know if you have any questions.





**Right of Way & Permits**

1123 West 3<sup>rd</sup> Avenue  
Denver, Colorado 80223  
Telephone: 303.285.6612  
[violeta.ciocanu@xcelenergy.com](mailto:violeta.ciocanu@xcelenergy.com)

April 16, 2024

Douglas County Planning Services  
100 Third Street  
Castle Rock, CO 80104

Attn: Eric Pavlinek

**Re: 8008 Y Camp Road, Case # LE2024-011**

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plan for **8008 Y Camp Road** and currently has **no apparent conflict**.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center by dialing 811 for utility locates prior to construction.

Violeta Ciocanu (Chokanu)  
Right of Way and Permits  
Public Service Company of Colorado dba Xcel Energy  
Office: 303-285-6612 – Email: [violeta.ciocanu@xcelenergy.com](mailto:violeta.ciocanu@xcelenergy.com)

**PROJECT DESCRIPTION**

INSTALLATION OF ANTENNAS, COAXIAL CABLE, AND ASSOCIATED MOUNTS ON A NEW 185' SELF SUPPORT TOWER.

INSTALLATION OF A 16' X 24' UNMANNED EQUIPMENT SHELTER ON CONCRETE FOUNDATION.

NEW ELECTRIC SERVICE TO SITE AND EQUIPMENT SHELTER. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

**SITE NAME:**

DECKERS

**SITE ADDRESS:**

8008 Y CAMP RD.  
SEDALIA, CO 80135

**SITE COORDINATES**

LATITUDE - N 39° 15' 05.64"  
LONGITUDE - W 105° 13' 38.40"

**SITE INFORMATION**

**LANDLORD**

CITY AND COUNTY OF DENVER  
1600 W. 12TH AVE  
DENVER, CO 80204

**APPLICANT**

DOUGLAS COUNTY SHERIFF  
4000 JUSTICE WAY  
CASTLE ROCK, CO 80104

**PROJECT MANAGER**

ADW COMMUNICATIONS SERVICES, INC.  
ALAN WAWRZYNIAK  
PH: (480) 291-6824  
EMAIL: AWAWRZYNIAK@ADWCOMM.COM

**ARCHITECTURAL AND ENGINEERING**

MISSION 1 COMMUNICATIONS  
6202 CONSTITUTION DRIVE, SUITE C  
FORT WAYNE, IN 46804

**TOWER MANUFACTURER**

SABRE INDUSTRIES  
7101 SOUTHBRIDGE DRIVE  
SIOUX CITY, IA 51102-0658  
PH: (712) 258-6690

**CONSULTANT TEAM**

<b>DOUGLAS COUNTY SHERIFF REPRESENTATIVE :</b>	RECEIVED :
	ACCEPTED :
<b>PROPERTY OWNER:</b>	RECEIVED :
	ACCEPTED :
	RECEIVED :
	ACCEPTED :
RECEIVED AND ACCEPTED	



**DIRECTIONS TO SITE**

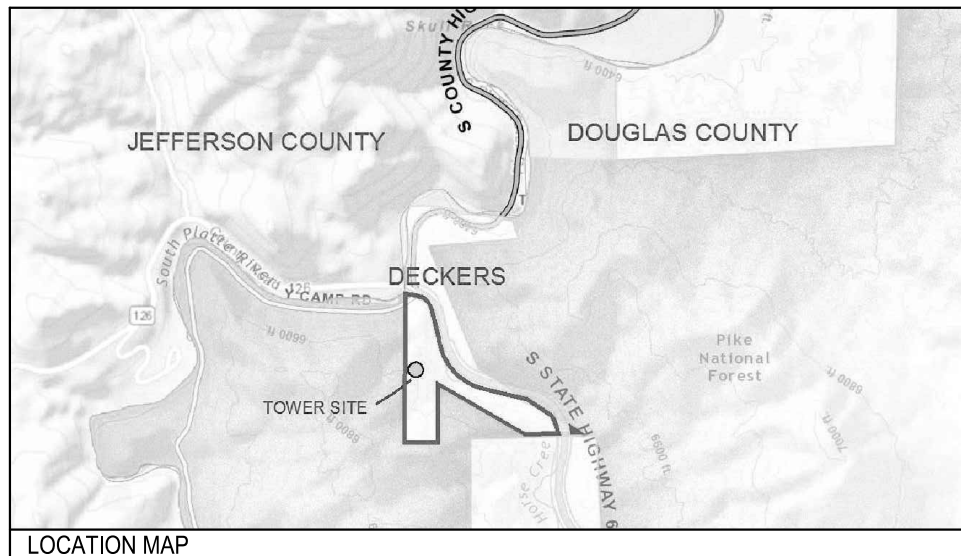
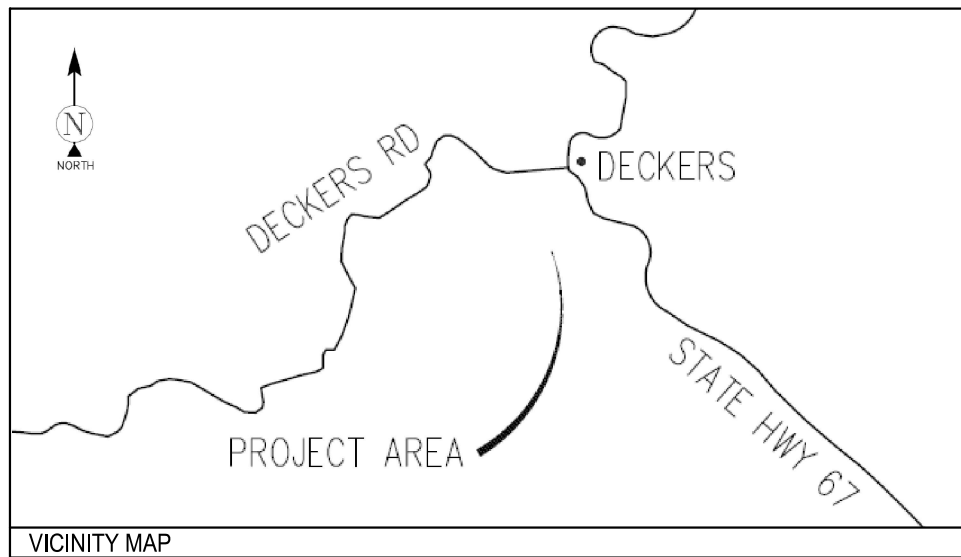
# 8008 Y CAMP ROAD

## DECKERS PUBLIC SAFETY COMMUNICATION TOWER

EAST 1/2 OF SECTION 21 TOWNSHIP 9 SOUTH, RANGE 7 WEST  
DOUGLAS COUNTY COLORADO  
15.38 ACRES

### DRAWING INDEX

- T-1 PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
- LS-1 TOPOGRAPHIC SURVEY
- C-2 ENLARGED SITE PLAN
- C-2.1 GRADING PLAN
- C-3 TOWER ELEVATION AND ANTENNA INFORMATION
- C-4 ANTENNA MOUNT DETAILS
- C-4.1 ANTENNA MOUNT DETAILS
- C-4.2 ANTENNA MOUNT DETAILS
- C-5 ANTENNA DETAILS
- C-5.1 ANTENNA DETAILS
- C-5.2 ANTENNA DETAILS



**PRELIMINARY  
NOT FOR  
CONSTRUCTION**



NO.	DATE	REVISIONS	BY	CHK	APP'D
E	05-02-24	CONCEPT DRAWING REVISED PER COMMENTS	JRF	SAH	
D	03-19-24	REVISED ADDRESS	SAH	SAH	
C	03-14-24	CONCEPT DRAWING REVISED PER COMMENTS	RNV	SAH	
B	03-05-24	CONCEPT DRAWING W/ TOWER ELEVATION	RNV	SAH	
A	02-08-24	CONCEPT DRAWING	SAH	SAH	

**MISSION 1**  
COMMUNICATIONS  
 6202 Constitution Drive, Suite C  
 Fort Wayne, IN 46804

**ADW**  
COMM  
 18291 N. PIMA RD., STE. 110-317  
 SCOTTSDALE, AZ 85255

**DOUGLAS COUNTY SHERIFF**  
Deputy M. Waddy

PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX	
DECKERS 8008 Y CAMP RD. SEDALIA, CO 80135	<b>T-1</b>

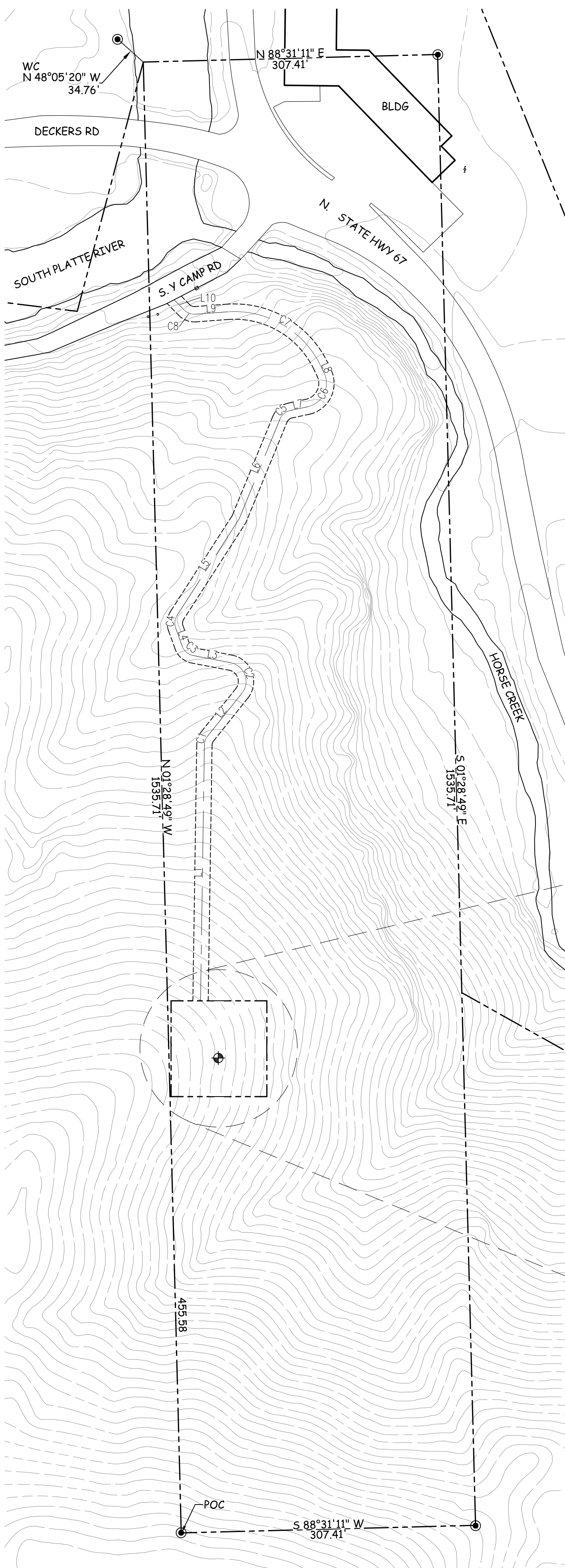
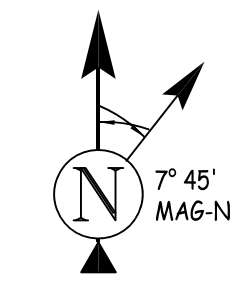
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



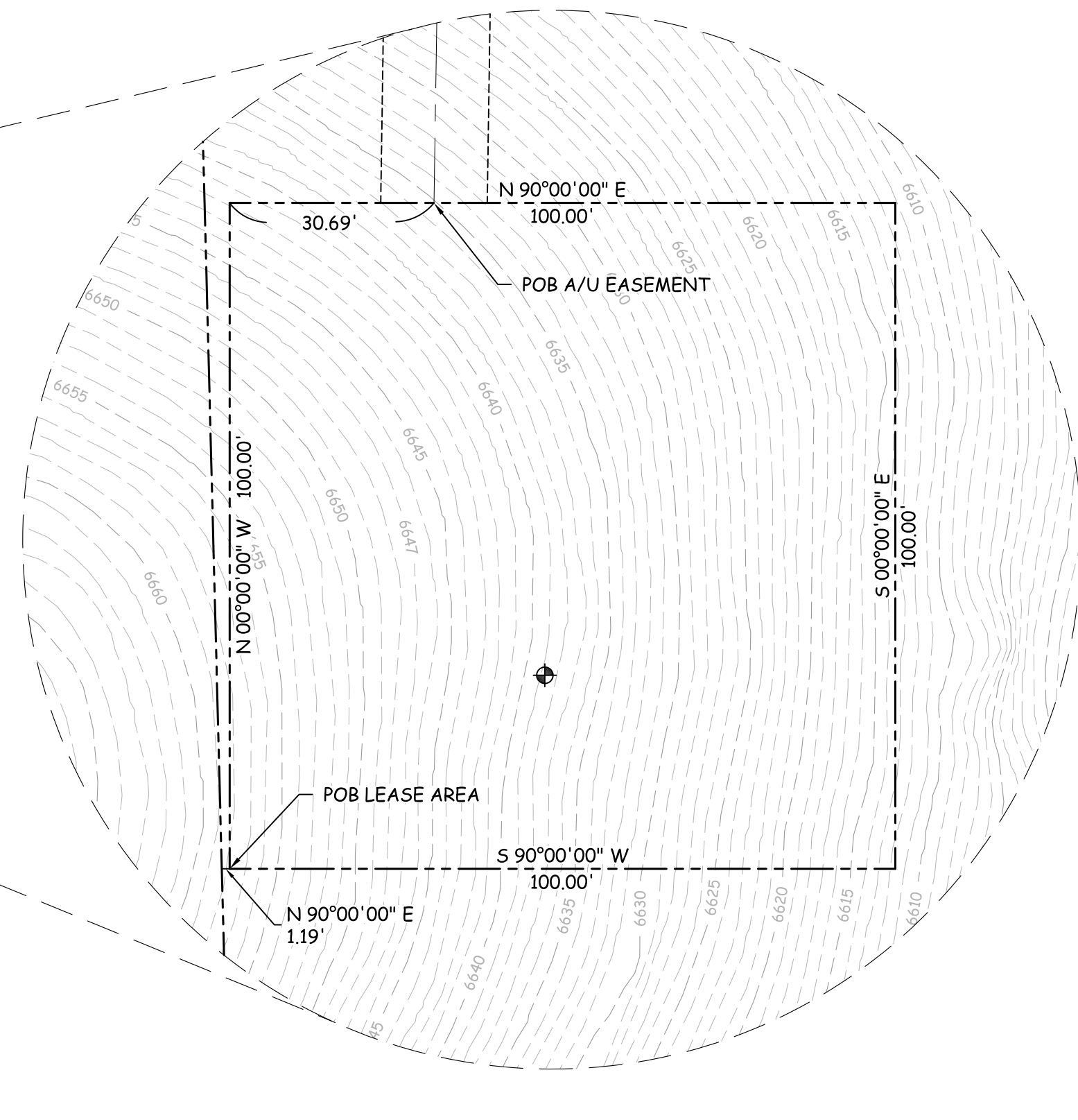
# TOPOGRAPHIC SURVEY

**8008 Y CAMP ROAD**  
**DECKERS PUBLIC SAFETY COMMUNICATION TOWER**  
**EAST 1/2 OF SECTION 21 TOWNSHIP 9 SOUTH, RANGE 7 WEST**  
**DOUGLAS COUNTY COLORADO**  
**15.38 ACRES**



**1-A ACCURACY CERTIFICATION**  
 THE HORIZONTAL ACCURACY OF THE LATITUDE AND LONGITUDE AT THE CENTER OF EACH SECTOR FALLS WITHIN FIFTEEN (15) FEET. THE ELEVATIONS (NAVD88) OF THE GROUND AND FIXTURES FALL WITHIN THREE (3) FEET.

CENTER OF PROPOSED TOWER  
 LATITUDE 39° 15' 05.64" NORTH (NAD83)  
 LONGITUDE 105° 13' 38.40" WEST  
 ELEVATION 6638.00' (NAVD88)



**FEMA FLOOD INFORMATION**

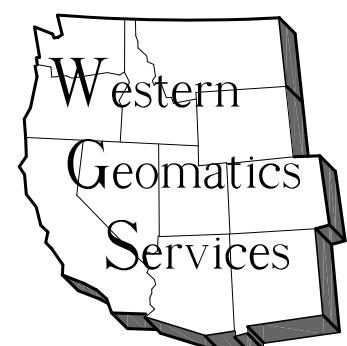
MAP NUMBER	COMMUNITY NUMBER	PANEL #	SUFFIX	PANEL DATE	FIRM ZONE
08035C0238F	080087	0238	F	9/30/2005	D

### LEGEND

- POB POINT OF BEGINNING
- POT POINT OF TERMINUS
- PUE PUBLIC UTILITY EASEMENT
- ROW RIGHT OF WAY
- DW DRIVEWAY
- SW SIDEWALK
- BCHH BRASS CAP IN HANDHOLE
- BCFL BRASS CAP FLUSH
- SPOT ELEVATION
- POSITION OF GEODETIC COORDINATES
- WATER CONTROL VALVE
- FIRE HYDRANT
- POWER POLE
- ELECTRIC MANHOLE
- TELCO MANHOLE
- FOUND BLM ALC "2012"
- OVERHEAD ELECTRIC
- PROPERTY LINE
- BARBED WIRE FENCE

LINE	BEARING	DISTANCE
L1	N 00°52'22" E	267.04'
L2	N 38°41'12" E	57.21'
L3	N 79°14'41" W	39.69'
L4	N 19°48'35" W	20.23'
L5	N 32°46'11" E	119.47'
L6	N 22°16'04" E	112.77'
L7	N 77°50'08" E	18.49'
L8	N 25°12'37" W	7.61'
L9	S 85°46'29" W	33.45'
L10	N 44°16'51" W	14.80'

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE
C1	15.00'	9.90'	37°48'50"
C2	20.00'	41.17'	117°55'53"
C3	15.00'	15.56'	59°26'07"
C4	15.00'	13.77'	52°34'46"
C5	15.00'	14.55'	55°34'05"
C6	25.00'	44.96'	103°02'45"
C7	100.00'	120.45'	69°00'54"
C8	15.00'	13.08'	49°56'39"

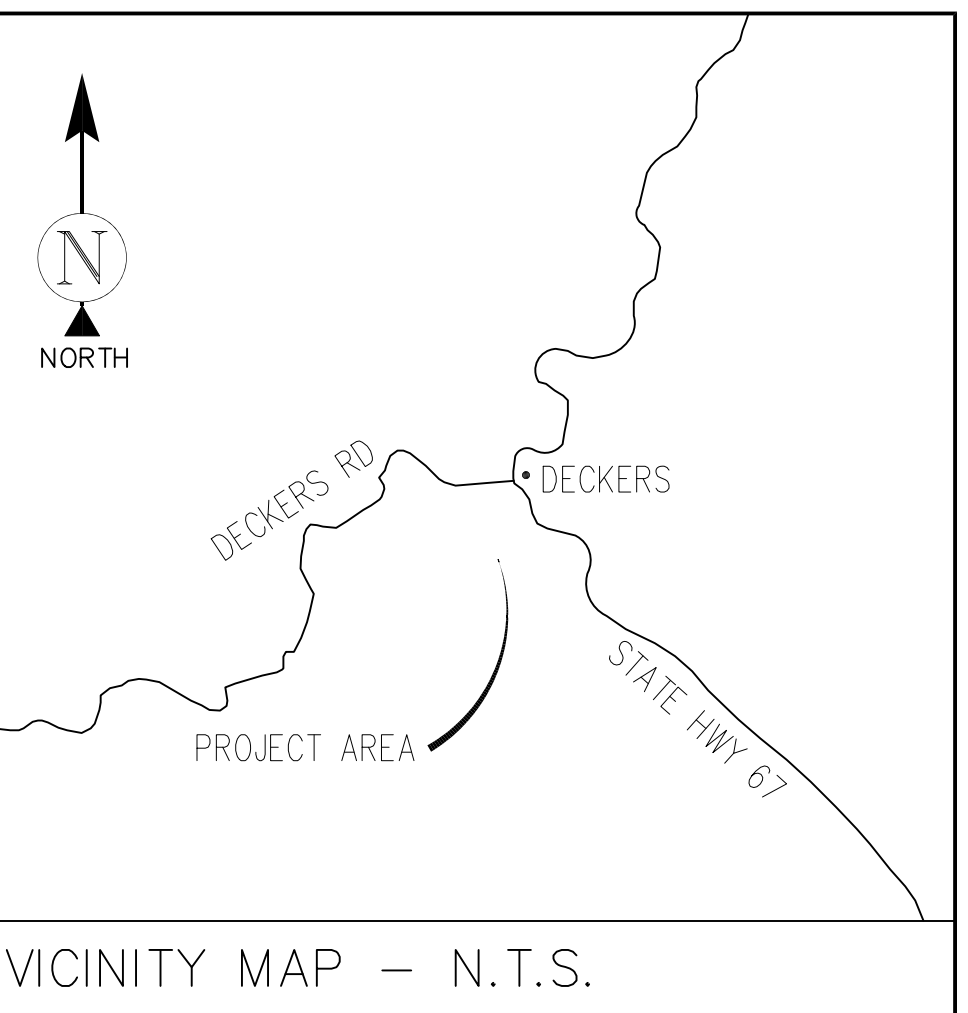


**SURVEYOR**  
 2925 E Riggs Rd Suite 8-191  
 Chandler, AZ 85249  
 (480) 656-7912 office  
 (480) 219-5195 fax

**LEASE AREA LEGAL DESCRIPTION**  
 A PORTION OF ANDRE LODE SITUATED IN THE EAST HALF OF SECTION 21, TOWNSHIP 9 SOUTH, RANGE 7 WEST OF THE SIXTH PRINCIPAL MERIDIAN, DOUGLAS COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE SOUTHWEST CORNER OF SAID ANDRE LODE AS DESCRIBED IN THE DEPENDENT RESURVEY BY ROGER G. ATNES, PLAT. CO06009050700W, FROM WHICH THE NORTHWEST CORNER OF SAID ANDRE LODE BEARS NORTH 01°28'49" WEST, A DISTANCE OF 1535.71 FEET, THENCE ALONG SAID WEST LINE NORTH 01°28'49" WEST 455.58 FEET; THENCE DEPARTING SAID WEST LINE NORTH 90°00'00" EAST, A DISTANCE OF 1.19 FEET TO THE POINT OF BEGINNING;  
 THENCE NORTH 00°00'00" WEST, A DISTANCE OF 100.00 FEET;  
 THENCE NORTH 90°00'00" EAST, A DISTANCE OF 100.00 FEET;  
 THENCE SOUTH 00°00'00" EAST, A DISTANCE OF 100.00 FEET;  
 THENCE SOUTH 90°00'00" WEST, A DISTANCE OF 100.00 FEET TO THE POINT OF BEGINNING.

**ACCESS AND UTILITY EASEMENT LEGAL DESCRIPTION**  
 A 16 FOOT ACCESS AND UTILITY EASEMENT SITUATED IN A PORTION OF ANDRE LODE SITUATED IN THE EAST HALF OF SECTION 21, TOWNSHIP 9 SOUTH, RANGE 7 WEST OF THE SIXTH PRINCIPAL MERIDIAN, DOUGLAS COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE SOUTHWEST CORNER OF SAID ANDRE LODE AS DESCRIBED IN THE DEPENDENT RESURVEY BY ROGER G. ATNES, PLAT. CO06009050700W, FROM WHICH THE NORTHWEST CORNER OF SAID ANDRE LODE BEARS NORTH 01°28'49" WEST, A DISTANCE OF 1535.71 FEET, THENCE ALONG SAID WEST LINE NORTH 01°28'49" WEST 455.58 FEET; THENCE DEPARTING SAID WEST LINE NORTH 90°00'00" EAST, A DISTANCE OF 1.19 FEET; THENCE NORTH 00°00'00" WEST A DISTANCE OF 100.00 FEET; THENCE NORTH 90°00'00" EAST, A DISTANCE OF 30.69 FEET TO THE POINT OF BEGINNING OF THE CENTERLINE OF SAID EASEMENT LYING 8 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:  
 THENCE NORTH 00°02'22" EAST, A DISTANCE OF 267.04 FEET TO THE BEGINNING OF A CURVE CONCAVE EAST HAVING A RADIUS OF 15.00 FEET AND A DELTA ANGLE OF 37°48'50"; THENCE ALONG SAID CURVE A DISTANCE OF 9.90 FEET;  
 THENCE NORTH 38°41'12" EAST, A DISTANCE OF 57.21 FEET TO THE BEGINNING OF A CURVE CONCAVE WEST HAVING A RADIUS OF 20.00 FEET AND A DELTA ANGLE OF 117°55'53"; THENCE ALONG SAID CURVE A DISTANCE OF 41.17 FEET;  
 THENCE NORTH 79°14'41" WEST, A DISTANCE OF 39.69 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHEAST HAVING A RADIUS OF 15.00 FEET AND A DELTA ANGLE OF 59°26'07"; THENCE ALONG SAID CURVE A DISTANCE OF 15.56 FEET;  
 THENCE NORTH 19°48'35" WEST, A DISTANCE OF 20.23 FEET TO THE BEGINNING OF A CURVE CONCAVE EAST HAVING A RADIUS OF 15.00 FEET AND A DELTA ANGLE OF 52°34'46"; THENCE ALONG SAID CURVE 13.77 FEET;  
 THENCE NORTH 32°46'11" EAST, A DISTANCE OF 119.47 FEET;  
 THENCE NORTH 22°16'04" EAST, A DISTANCE OF 112.77 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHWEST HAVING A RADIUS OF 15.00 FEET AND A DELTA ANGLE OF 53°34'05"; THENCE ALONG SAID CURVE A DISTANCE OF 14.55 FEET;  
 THENCE NORTH 77°50'08" EAST, A DISTANCE OF 18.49 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWEST HAVING A RADIUS OF 25.00 FEET AND A DELTA ANGLE OF 103°02'45"; THENCE ALONG SAID CURVE 44.96 FEET;  
 THENCE NORTH 25°12'37" WEST, A DISTANCE OF 7.61 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTH HAVING A RADIUS OF 100.00 FEET AND A DELTA ANGLE OF 69°00'54"; THENCE ALONG SAID CURVE 120.45 FEET;  
 THENCE SOUTH 85°46'29" WEST, A DISTANCE OF 33.45 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTH HAVING A RADIUS OF 15.00 FEET AND A DELTA ANGLE OF 49°56'39"; THENCE ALONG SAID CURVE 13.08 FEET;  
 THENCE NORTH 44°16'51" WEST, A DISTANCE OF 14.80 FEET TO THE SOUTH RIGHT OF WAY LINE OF SOUTH Y CAMP ROAD.

### LEGAL DESCRIPTIONS



**BENCHMARK**  
 NGS CONTROL STATION "KK0762"  
 ELEVATION = 6408.84' NAVD88

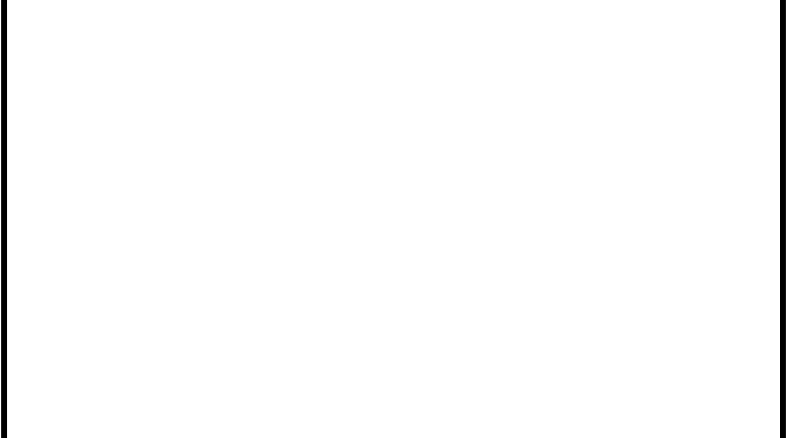
**BASIS OF BEARINGS**  
 BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM, COLORADO CENTRAL ZONE, DETERMINED BY GPS OBSERVATIONS.

**SURVEY DATE**  
 3.30.23

**SURVEYOR'S NOTES**  
 A TITLE REPORT WAS NOT PROVIDED AT THE TIME THIS SURVEY WAS PERFORMED. ANY EASEMENTS OR OTHER ITEMS CONTAINED WITHIN THE TITLE REPORT WHICH MAY AFFECT THE LEASE AREA HAVE NOT BEEN PLOTTED.  
 THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

**UTILITY NOTES**  
 SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION, REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

### PROJECT INFORMATION



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SCALE IS BASED ON 24 X 36 "D" SIZE (11 X 17 FORMAT IS NOT TO SCALE)

DRAWN BY: CB  
 APPROVED BY: JC

**SUBMIT TRACKER**

REV.	DATE	DESCRIPTION	BY
1	03.07.24	SUBMITTAL	CB

**SITE CODE:**  
 -

**SITE NAME:**  
 DECKERS

**SITE LOCATION:**  
 S. Y CAMP RD  
 DECKERS, CO 80135  
 LATITUDE: 39° 15' 05.64" N  
 LONGITUDE: 105° 13' 38.40" W  
 ELEVATION: 6638.0'

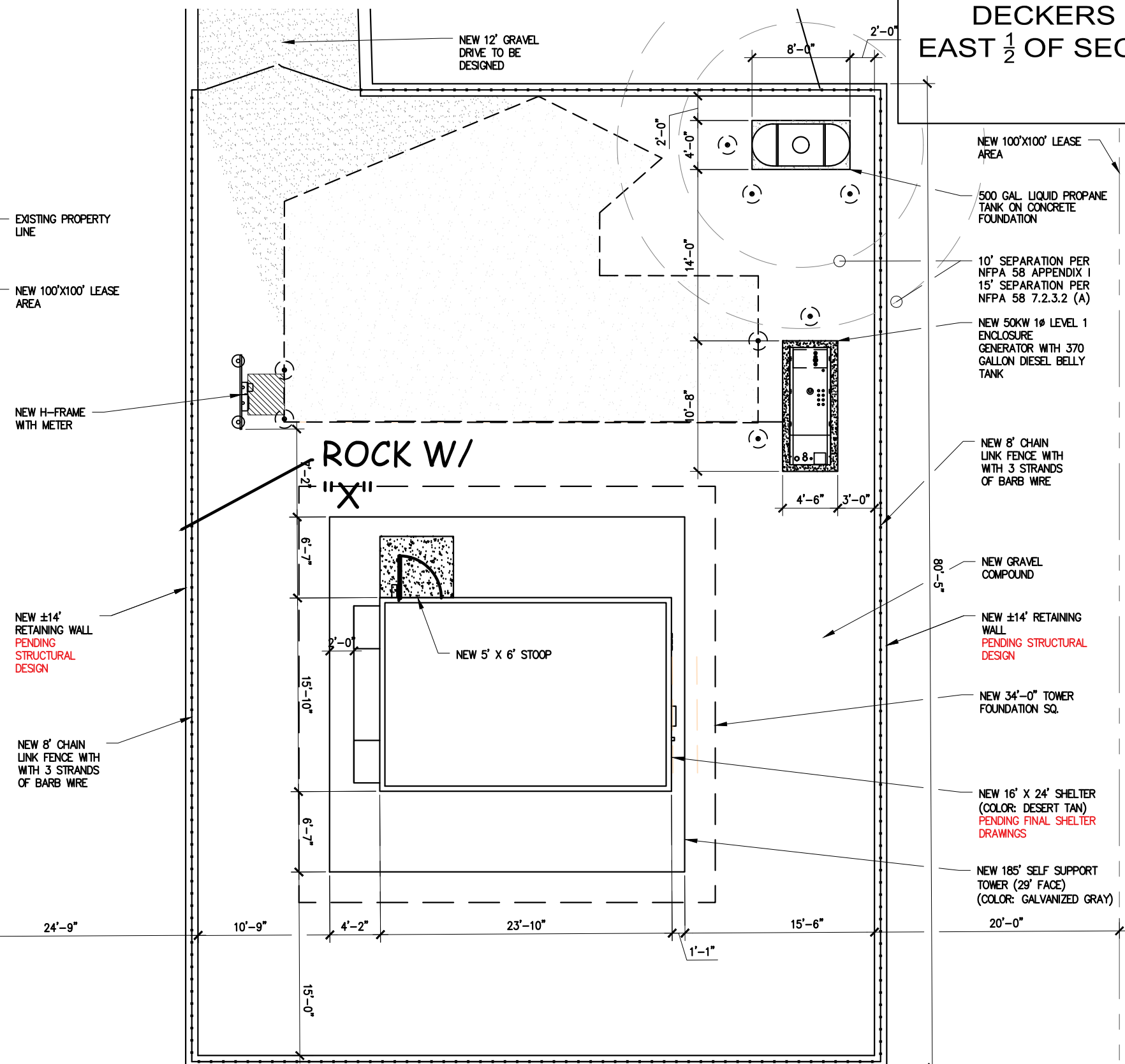
**SHEET TITLE:**  
**TOPOGRAPHIC SURVEY**

**LS-1**



# 8008 Y CAMP ROAD

DECKERS PUBLIC SAFETY COMMUNICATION TOWER  
 EAST 1/2 OF SECTION 21 TOWNSHIP 9 SOUTH, RANGE 7 WEST  
 DOUGLAS COUNTY COLORADO  
 15.38 ACRES



PRELIMINARY  
 NOT FOR  
 CONSTRUCTION

**811**  
 Know what's below.  
 Call before you dig.  
 1-800-922-1987  
 CALL TOLL FREE

NO.	DATE	REVISIONS	BY	CHK	APP'D
E	05-02-24	CONCEPT DRAWING REVISED PER COMMENTS	JRF	SAH	
D	03-19-24	REVISED ADDRESS	SAH	SAH	
C	03-14-24	CONCEPT DRAWING REVISED PER COMMENTS	RNV	SAH	
B	03-05-24	CONCEPT DRAWING W/ TOWER ELEVATION	RNV	SAH	
A	02-08-24	CONCEPT DRAWING	SAH	SAH	

**MISSION 1**  
COMMUNICATIONS  
 6202 Constitution Drive, Suite C  
 Fort Wayne, IN 46804

**4DM**  
comm  
 18291 N. PIMA RD., STE. 110-317  
 SCOTTSDALE, AZ 85255

**DOUGLAS COUNTY SHERIFF**  
Deputy M. Waddy

ENLARGED SITE PLAN	
DECKERS 8008 Y CAMP RD. SEDALIA, CO 80135	<b>C-2</b>

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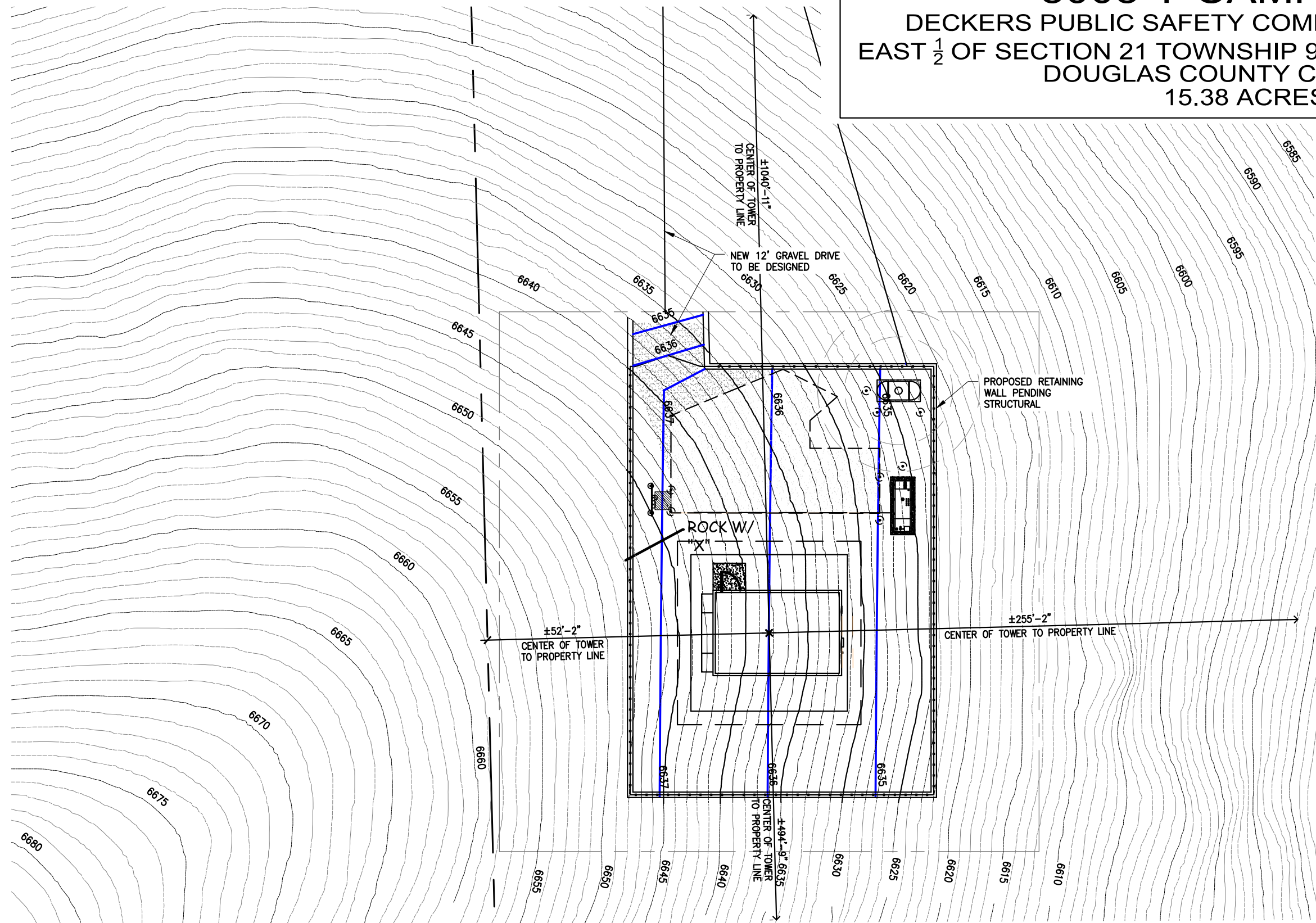
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# 8008 Y CAMP ROAD

## DECKERS PUBLIC SAFETY COMMUNICATION TOWER

EAST  $\frac{1}{2}$  OF SECTION 21 TOWNSHIP 9 SOUTH, RANGE 7 WEST  
DOUGLAS COUNTY COLORADO  
15.38 ACRES



**Grading Plan**

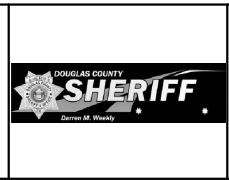
NORTH

10 0 10 20  
1 inch = 20ft.

PRELIMINARY  
NOT FOR  
CONSTRUCTION



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B	03-05-24	CONCEPT DRAWING W/ TOWER ELEVATION	RNV	SAH	
A	02-08-24	CONCEPT DRAWING	SAH	SAH	



GRADING PLAN	<b>C-2.1</b>
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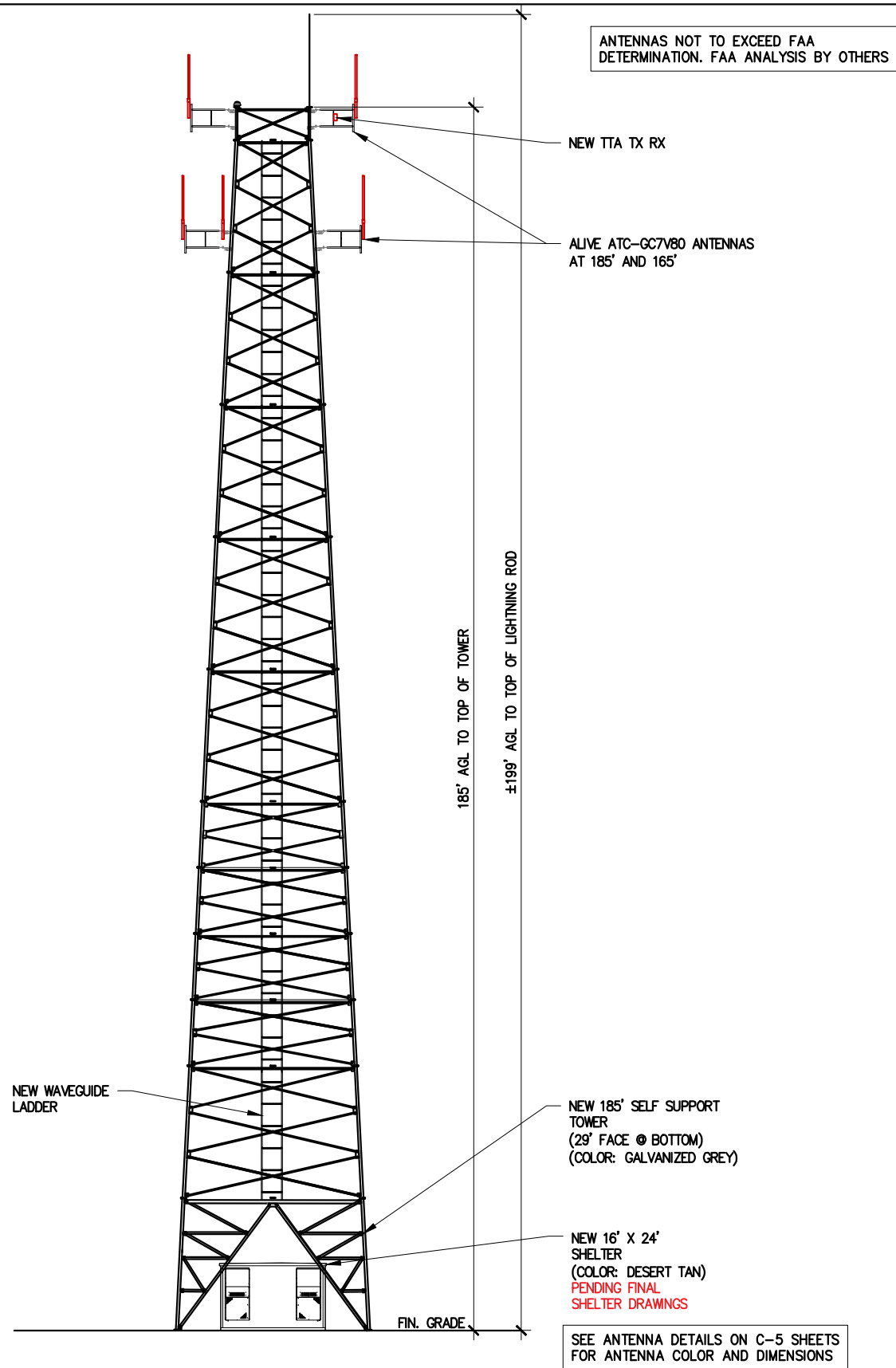
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# 8008 Y CAMP ROAD

## DECKERS PUBLIC SAFETY COMMUNICATION TOWER

EAST 1/2 OF SECTION 21 TOWNSHIP 9 SOUTH, RANGE 7 WEST  
DOUGLAS COUNTY COLORADO  
15.38 ACRES



- GENERAL NOTES:**
- SEE TOWER AND FOUNDATION DRAWINGS SABRE INDUSTRIES JOB NUMBER 539446 DATED MARCH 29, 2024.
  - ALL VERTICAL TRANSMISSION LINE RUNS FROM THE ANTENNAS SHALL BE GROUNDED NEAR THE TOP & BOTTOM OF THE TOWER (BEFORE THE CABLE MAKES HORIZONTAL TRANSITION & NEAR ENTRY PORT ON THE SHELTER). ADDITIONAL TRANSMISSION LINE GROUND KITS SHALL BE INSTALLED AS NEEDED TO LIMIT THE DISTANCE BETWEEN GROUND KITS TO 75 FEET.
  - THE CONTRACTOR SHALL CONDUCT A FDR SWEEP TEST ON ALL THE NEWLY INSTALLED TRANSMISSION LINES TO DETERMINE THE CABLE CONDUCTOR RESISTANCE, CABLE INSERTION LOSS, REFLECTION & STIMULUS RESPONSE MEASUREMENTS. RESULTS TO BE SUBMITTED TO DOUGLAS COUNTY SHERIFF DEPARTMENT.
  - DRIP LOOPS SHALL BE INCORPORATED IN CABLE RUNS TO PREVENT WATER FROM TRICKLING DOWN THE LINES INTO THE SHELTER.
  - ALL TRANSMISSION LINES SHALL BE MARKED WITH APPROPRIATE COLOR TAPE BANDS (ONE INCH WIDE COLOR TAPE) FOR IDENTIFICATION NEAR THE ANTENNA. JUST BEFORE ENTERING THE SHELTER AS WELL AS INSIDE THE SHELTER, BEFORE CONNECTING TO THE SURGE SUPPRESSORS. SEE EQUIPMENT & COAXIAL CABLE SCHEDULE FOR COLOR CODING SCHEME.
  - COLOR TAPE BANDS ARE ONLY TEMPORARY. PERMANENT BRASS TAGS SHALL BE INSTALLED PER R-56 4"-6" FROM FOLLOWING LOCATIONS: NEAR THE ANTENNA, JUST BEFORE ENTERING THE SHELTER AS WELL AS INSIDE SHELTER, BEFORE CONNECTING TO THE SURGE SUPPRESSORS.

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### 1 Tower Elevation

NOT TO SCALE

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TOWER ELEVATION AND ANTENNA INFORMATION	
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C-3

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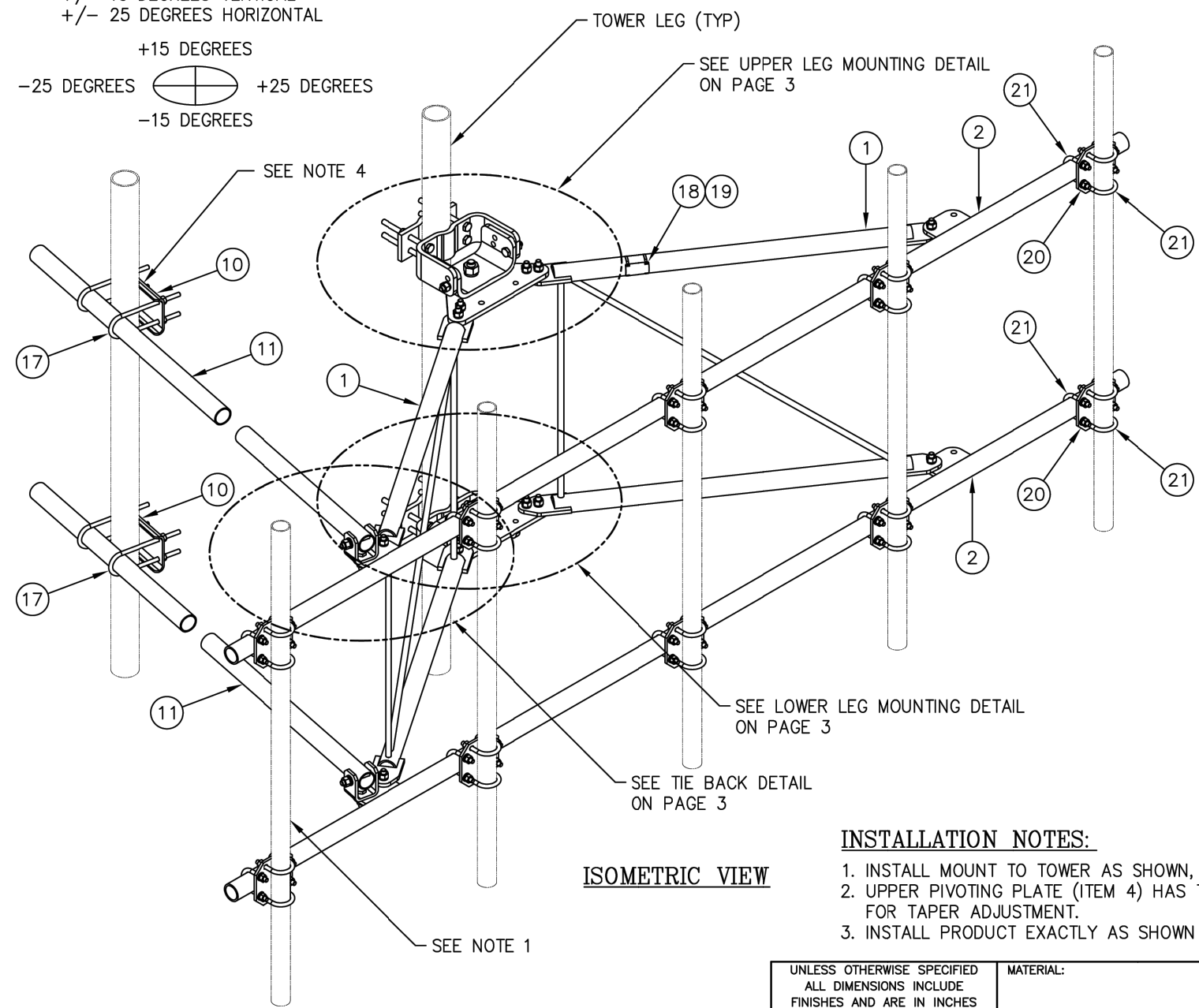




**TIEBACK ANGLE RANGE DETAIL**

+/- 15 DEGREES VERTICAL  
 +/- 25 DEGREES HORIZONTAL

+15 DEGREES  
 -25 DEGREES    +25 DEGREES  
 -15 DEGREES



**ISOMETRIC VIEW**

C10857077C 12' EHD V-BOOM ASSEMBLY W/TIEBACKS				
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	CW01222	WELDMENT, STANDOFF ARM	126
2.	2	CW01223	WELDMENT, FACE PIPE	147
3.	2	CS03109	PLATE, ROTATING	34
4.	1	CS03110	PLATE, PIVOTING (UPPER)	16
5.	1	CS03111	PLATE, LEG CLAMP (UPPER)	17
6.	1	CS03112	PLATE, PIVOTING (LOWER)	14
7.	1	CS03113	PLATE, LEG CLAMP (LOWER)	17
8.	2	CS03114	PLATE, LEG CLAMP (BACK)	14
9.	2	CS00098	PLATE, TIE BACK SWIVEL	5
10.	2	CS03285	PLATE, TIE BACK CLAMP	9
11.	2	CS03333	PIPE, TIE BACK	76
12.	2	C40026073	BOLT ASSEMBLY, 1 Ø X 3 A325	4
13.	8	C40140004	BOLT ASSEMBLY, 5/8 Ø X 8 A307	13
14.	2	C40026033	BOLT ASSEMBLY, 5/8 Ø X 4 1/2 A325	2
15.	12	C40026025	BOLT ASSEMBLY, 5/8 Ø X 2 1/2 A325	6
16.	6	C40026024	BOLT ASSEMBLY, 5/8 Ø X 2 1/4 A325	3
17.	4	C40034183	U-BOLT ASSEMBLY, 1/2 Ø X 2 9/16 C-C	6
18.	1	Z30992017	MOUNT CLASSIFICATION TAG C10857007C	1
19.	2	C40062103	STAINLESS STEEL SELF-LOCKING CABLE TIE	1
20.	10	CS03115	CROSSOVER PLATE (2 3/8-2 3/8)	38
21.	40	C40034139	U-BOLT ASSEMBLY, 1/2 Ø X 2 15/16 C-C	33
TOTAL WEIGHT				582

**PACKAGING NOTE**

CK00386 INCLUDES ITEMS 1, 3, 4, 5, 6, 7, 12 & 15 (8 QTY)  
 CK00392 INCLUDES ITEMS 2, 8, 9, 10, 11, 13, 14, 15 (4 QTY), 16, 17, 18 & 19

PENDING STRUCTURAL ANALYSIS

**INSTALLATION NOTES:**

- INSTALL MOUNT TO TOWER AS SHOWN, SO THAT WELDED STANDOFF DIAGONAL IS SLOPING DOWNWARD FROM TOWER END TO FACE PIPE END.
- UPPER PIVOTING PLATE (ITEM 4) HAS THREE HOLES ON EACH SIDE AND UPPER LEG CLAMP PLATE (ITEM 5) HAS TWO HOLES ON EACH SIDE FOR TAPER ADJUSTMENT.
- INSTALL PRODUCT EXACTLY AS SHOWN IN DRAWING, WITH ALL BOLTS FACING UPWARDS.

**NOTES:**

- 2 3/8" O.D. MOUNTING PIPES MUST BE PURCHASED SEPARATELY.
- QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY.
- THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1 1/2" Ø TO 5 9/16" Ø ROUND LEG.
- TIEBACKS MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED ABOVE IN THE TIEBACK ANGLE RANGE DETAIL UNLESS APPROVED BY THE ENGINEER OF RECORD.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16"		TOLERANCES DO NOT APPLY TO RAW MATERIAL	
ANGLES ± 1/2 DEG.			
DECIMALS ± .010"			
REV	DATE	DRW	CHK
1	10/19/16	KLE	DEL
ADDED INSTALLATION NOTES			

**Sabre Industries**  
Towers and Poles

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12' EHD V-BOOM ASSEMBLY W/TIEBACKS (3' STANDOFF) W/CROSSOVER PLATE KITS (2 3/8-2 3/8)			
DATE	03/09/16	SIZE	B
DRAWN BY	WRF	DRAWING NO.	C10857077C
CHECKED BY	KLE	REV	1
		SCALE	None
		PAGE	1 OF 3

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A	02-08-24	CONCEPT DRAWING	SAH	SAH	

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 Fort Wayne, IN 46804

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 SCOTTSDALE, AZ 85255

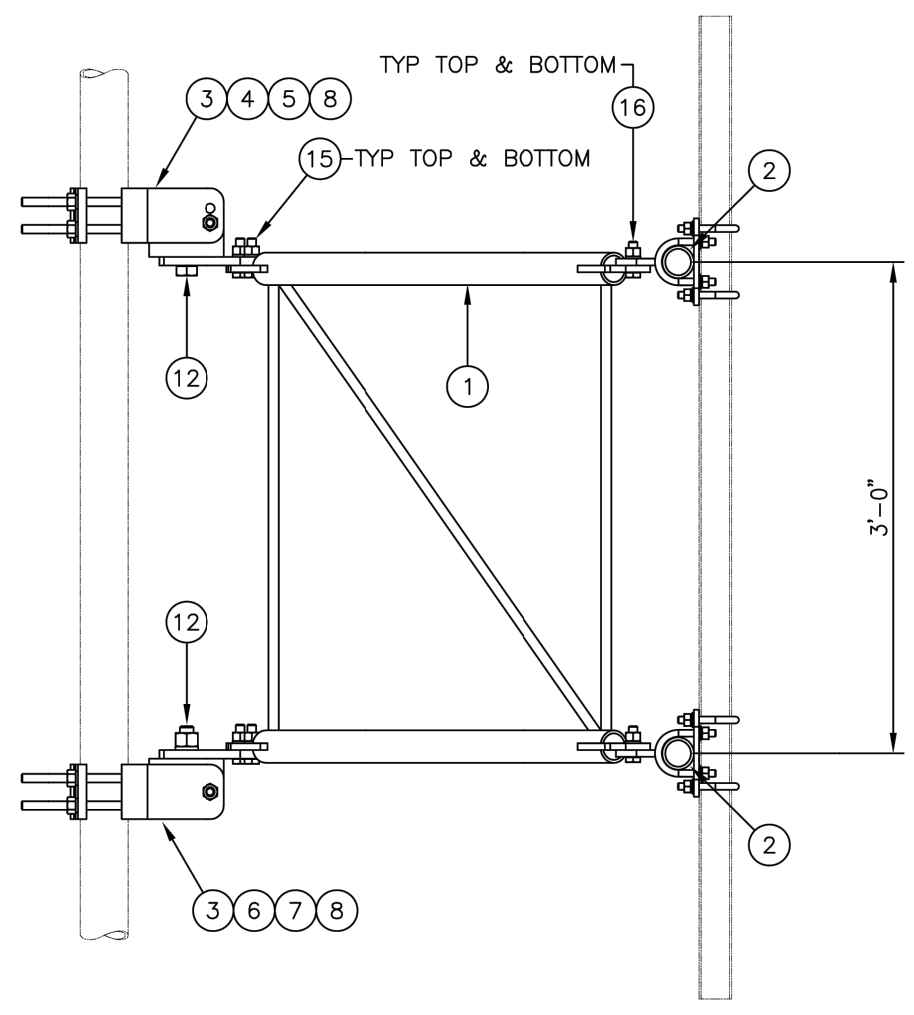
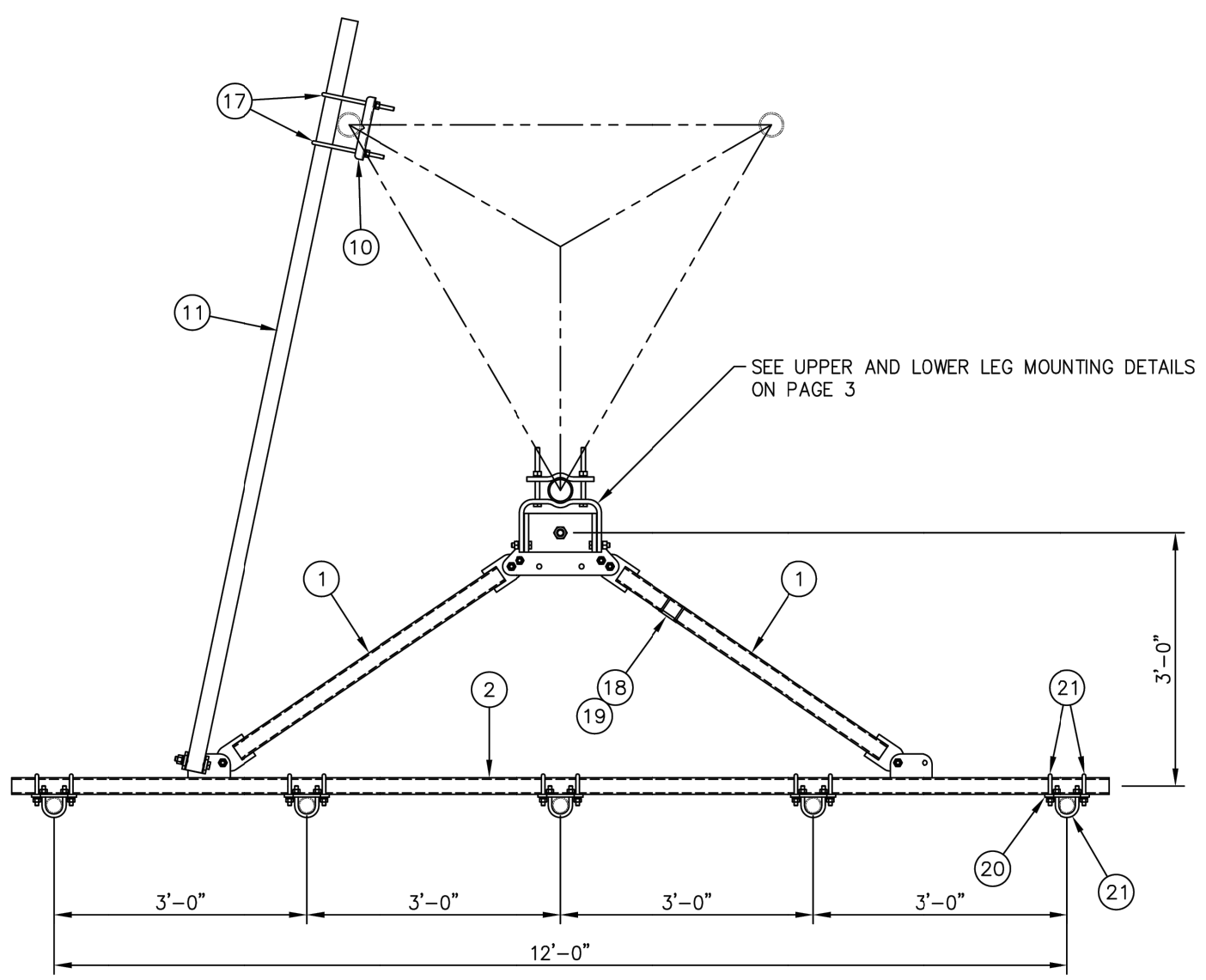
DOUGLAS COUNTY  
 Sheriff's Office

ANTENNA MOUNT DETAILS	
DECKERS 8008 Y CAMP RD. SEDALIA, CO 80135	

C-4

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SIDE VIEW

PENDING STRUCTURAL ANALYSIS

MOUNTING OPTIONS  
SHOWING MOUNTING PIPE PLACEMENTS

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL	
REV	DATE	DRW	CHK
1	10/19/16	KLE	DEL
ADDED INSTALLATION NOTES			
DESCRIPTION			



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12' EHD V-BOOM ASSEMBLY W/TIEBACKS  
(3' STANDOFF)  
W/CROSSOVER PLATE KITS (2 3/8-2 3/8)

DATE	03/09/16	SIZE	B	DRAWING NO.	C10857077C	REV	1
DRAWN BY	WRF	SCALE	None	PAGE	2 OF 3		
CHECKED BY	KLE						

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A	02-08-24	CONCEPT DRAWING	SAH	SAH	

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SHERIFF  
 Douglas County

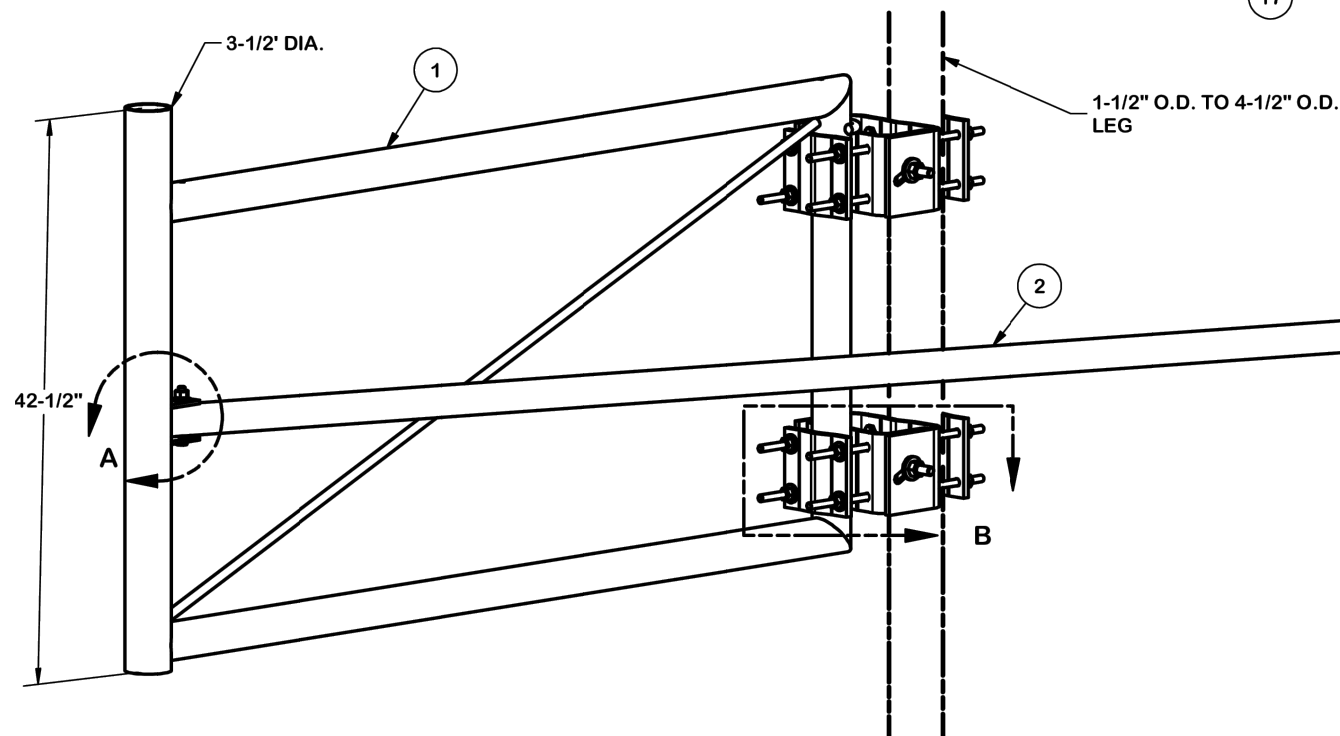
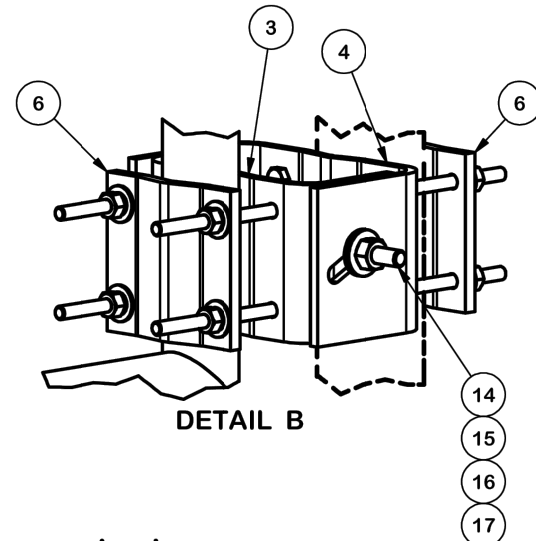
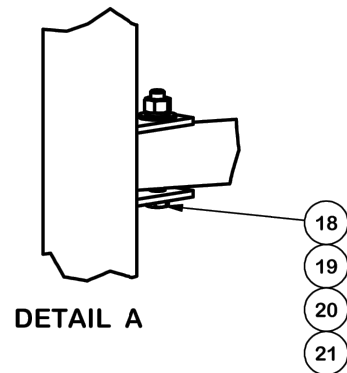
ANTENNA MOUNT DETAILS

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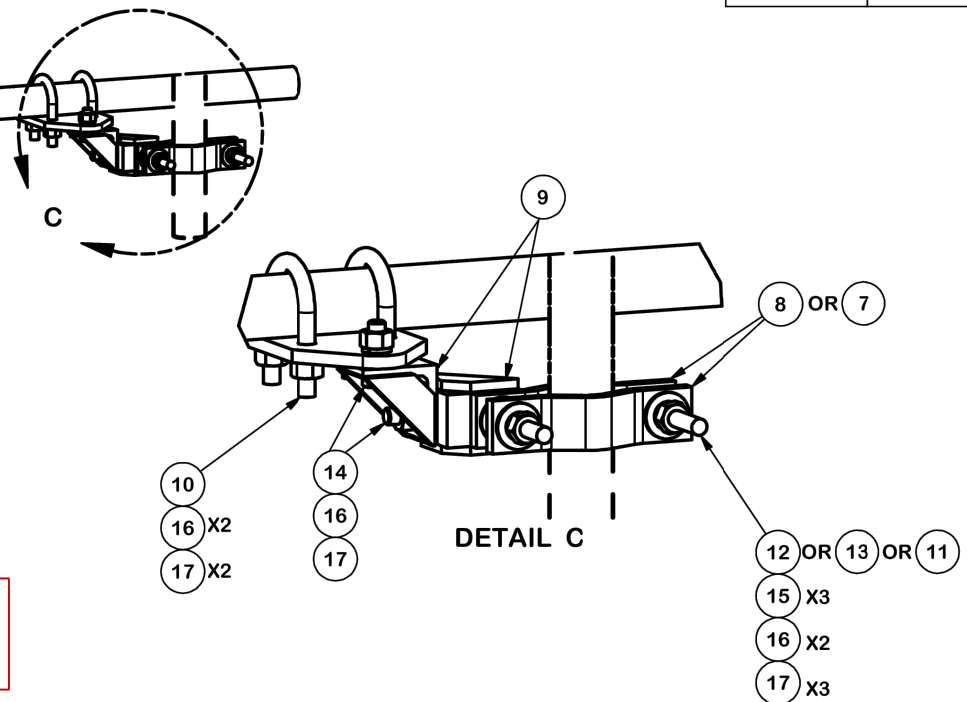
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PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-HS6-3	6' HEAVY DUTY ANTENNA STANDOFF WELDMENT		129.27	129.27
2	1	351650	2" SCH. 40 PIPE (2.375" O.D. x 0.154" WALL) A500	150 in	45.75	45.75
3	2	X-154463	UNIVERSAL PIPE MOUNTING PLATE (INNER)	16 11/32 in	10.52	21.03
4	2	X-155561	UNIVERSAL PIPE MOUNTING PLATE (OUTER)	20 9/32 in	13.16	26.31
5	1	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	5.87
6	4	X-159999	BACKING PLATE	6 9/16 in	5.73	22.92
7	2	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	7.19
8	2	DCP	1/2" THICK, 5-3/4" CTR TO CENTER CLAMP HALF	8 1/8 in	2.36	4.72
9	2	X-TBCA	TIE BACK CLIP ANGLE		2.01	4.01
10	2	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	2.00
11	2	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	2.09
12	2	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	1.39
13	2	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	0.89
14	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
15	13	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	0.92
16	14	G58LW	5/8" HDG LOCKWASHER		0.03	0.37
17	15	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	1.95
18	16	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	6.55
18	17	G1204	1/2" x 4" HDG HEX BOLT GR5 FULL THREAD	4 in	0.27	4.59
19	17	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.58
20	17	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.24
21	17	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.22
					TOTAL WT. #	291.47



PENDING STRUCTURAL ANALYSIS

**TOLERANCE NOTES**

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
 SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030"$ )  
 DRILLED AND GAS CUT HOLES ( $\pm 0.030"$ ) - NO CONING OF HOLES  
 LASER CUT EDGES AND HOLES ( $\pm 0.010"$ ) - NO CONING OF HOLES  
 BENDS AND ANGLES ARE  $\pm 1/2$  DEGREE  
 ALL OTHER MACHINING ( $\pm 0.030"$ )  
 ALL OTHER ASSEMBLY ( $\pm 0.060"$ )

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DESCRIPTION				Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX Tampa, FL
6' HEAVY DUTY STAND-OFF MOUNT		Engineering Support Team: 1-888-753-7446		
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	1 OF 1 PAGE
	CEK 8/7/2019		HS6-K	
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 8/21/2019	HS6-K

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ANTENNA MOUNT DETAILS

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## Product Data Sheet **ATC-GC7V80**

### High Gain 700/800 MHz V-POL Omni

- OEM Quality Broadband Performance
  - Rated for 500 Watts Continuous Power
  - -150 dBc PIM Rating
- Stable Electrical performance across entire band
- High quality mechanical package provides IP 66 rating
- Available with null-fill and/or beam tilt configurations

#### Electrical Specifications

Frequency Range	740-870 MHz
Gain	8.0 dBd
VSWR (Return Loss)	<1.5:1 (14dB)
Passive IM 3 <sup>rd</sup> Order (2x20W)	-150 dBc
Peak Instantaneous Power (PIP)	25 kW
Power Input	500 W
Vertical Beamwidth	9°
Horizontal Beamwidth	Omni +/-0.5 dB
Input	7-16 DIN Female D7 4.3-10 DIN Female D4
Beam Tilt	0-10 degree options

#### Mechanical Specifications

Configuration	Corporate Fed Dipole Array
Length	115"
Radome Diameter	3.0"
Weight	25 lbs
Shipping Weight	35 lbs
Shipping Dimensions	L 117" W 4" H 4"
Mounting Area	12.0 x 3.0" diam. aluminum
Suggested Clamps (not included)	PLMTKIT-1

#### Environmental Specifications

Operating Temperature	-40° to +140°F (-40°C to 60°C)
IP Rating	66
Projected Area	2.4 ft2 (no ice) 3.2 ft2 (with ice)
Lateral Thrust @ 100mph	48 lbs.
Wind Gust Rating	150 mph



**ATC-GC7V80-X-Y-Z**  
**X** = Input Connector [D7 for 7-16 DIN(f); D4 for 4.3-10 DIN(f)]  
**Y** = Beam Tilt [1-10]  
**Z** = Null Fill [NF]

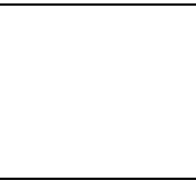
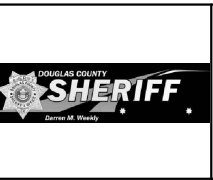
[www.alivetele.com](http://www.alivetele.com)

9850 W 190<sup>th</sup> Street Suite F Mokena, IL 60448

(708)478-6886

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ANTENNA DETAILS

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# 440 Non-Diversity TTA System



DS033452-6  
6/17/2022

**Solution:** For over 25 years TX RX and tower top amplifier (TTA) systems have been synonymous at Motorola. This has been due to TX RX's exceptional quality and value, as well as its customer-focused and can-do attitude. Continuing this tradition, TX RX developed the 440 non-diversity TTA system to exceed "Motorola Solutions TTA Requirements 2018" and to simplify installation and maintenance, while improving operation and radio coverage.

**How it Works:** The 440 non-diversity TTA system is designed to enhance the performance of base radios, thus ensuring reliable communications for critical Public Safety applications. This solution increases receiver sensitivity, which will improve wide-area coverage and marginal in-building penetration, as well as help correct the imbalance between mobile and hand-held radio users.

The TTA system consists of the following components:

- The TTA mounted close to the antenna.
- The control unit/deck that is located in the equipment shelter.
  - Two styles of control units can be ordered: the ESS style (CU) for use at sites that have an expandable site subsystem, and the SA style (C&DU) for sites having individually interfaced base radios.
  - The control unit is designed to interface to receivers operating within the passband of the system (794-824 MHz).
  - The 440 control unit is similar to the one used in the 442 dual branch diversity system.
- An antenna feedline and a test port line between the control unit and the TTA.



Each of the two low noise amplifiers within the TTA use quadrature design, as well as separate bias circuits for maximum redundancy. In addition, if the preferred amplifier fails, the system will automatically switch to the backup amplifier, and a technician will be notified.

This solution can be used in P25, high performance data, and standard land mobile systems.

The 440 non-diversity TTA system complies with "Motorola Solutions TTA Requirements 2018."

DS033452-6  
6/17/2022

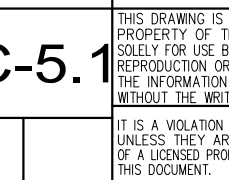
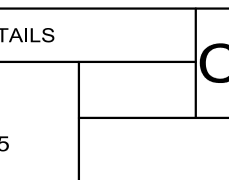
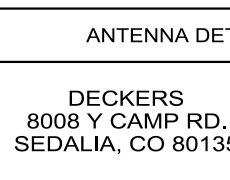
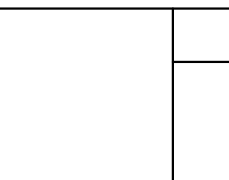
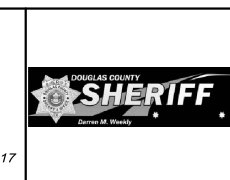
Name	TTA-SA-SR-16-32	TTA-ESS-SR-2
Description	SA Single Branch Redundant Amp TTA	ESS Single Branch Redundant Amp TTA

TTA System Specifications		
System Gain	23 dB min, adjustable to 10 dB or less	18 dB min, adjustable to 5 dB or less
System Noise Figure	≤ 2.8 dB	≤ 2.8 dB
User Type	Public Safety Critical Infrastructure	Public Safety Critical Infrastructure
Frequency Band(s)	7/800 MHz	7/800 MHz
System Passband	794-824 MHz (30 MHz)	794-824 MHz (30 MHz)
System Gain Flatness	≤ 1.25 dB	≤ 1.25 dB
System Selectivity	BW 3 dB = 36.82 MHz, Q = 21.98 BW 6 dB = 38.81 MHz, Q = 20.85 BW 60 dB = 55.87 MHz, Q = 14.49 Shape Factor = 1.44 @ 60 dB / 6 dB	BW 3 dB = 36.71 MHz, Q = 22.04 BW 6 dB = 39.01 MHz, Q = 20.74 BW 60 dB = 56.56 MHz, Q = 14.32 Shape Factor = 1.45 @ 60 dB / 6 dB
Adjustable Attenuation Range	15.0 dB to 0 dB	15.0 dB to 0 dB
Adjustable Attenuation Step Size	0.5 dB	0.5 dB
Optional Redundant Power Supply	Yes	Yes
Test Port	Yes	Yes
Preselector	Yes	Yes
System TX Band Rejection	≥ 110 dB	≥ 110 dB
Internal Termination Test Mode	Yes	Yes
Antenna Test Mode	Yes	Yes
Bypass (Failure) Mode	Yes	Yes
Bypass Mode System Loss	< 23 dB	< 10 dB
Internal Storage of Test Data	Yes	Yes
Auto Receive Overall Gain Setup	Yes (either touch display or web interface)	Yes (either touch display or web interface)
High Level Carrier Monitor	Yes (events are logged)	Yes (events are logged)
AC Current	~300 mA (@110 VAC)	~300 mA (@110 VAC)
DC Current	~1A (@ -48 VDC), ~2.6A (@ 12 VDC)	~1A (@ -48 VDC), ~2.6A (@ 12 VDC)

Tower Top Amplifier Specifications		
Gain	28.0 dB minimum	28.0 dB minimum
Noise Figure	≤ 2.5 dB	≤ 2.5 dB
Type of Amplifier	Quadrature Coupled	Quadrature Coupled
Amplifier Redundancy	2 Independent Quadrature Amplifiers	2 Independent Quadrature Amplifiers
Amplifier Switching	Automatic upon failure detection	Automatic upon failure detection
Type of Amplifier / Test Mode Switching	Hermetic Relays and Solid State Switch	Hermetic Relays and Solid State Switch
Amplifier Input 3rd order IP	> 16 dBm	> 16 dBm
Return Loss on all RF Ports	> 15 dB	> 15 dB
Power Requirements	Power derived from RX cable	Power derived from RX cable
Operating Temp Range (full spec)	-30° C to +60° C	-30° C to +60° C
Operating Temp Range (degraded spec)	-40° C to +70° C	-40° C to +70° C
Lightning Protection Main Port and Test Port	20kA IEC61000-4-5 8/20µs multiple strike 3kA 10/350µs	20kA IEC61000-4-5 8/20µs multiple strike 3kA 10/350µs
Lightning Protection Antenna Port	40kA IEC61000-4-5 8/20µs single strike 3kA 10/350µs	40kA IEC61000-4-5 8/20µs single strike 3kA 10/350µs
Grounding Studs	Double Stud, M8 (3/4" spacing)	Double Stud, M8 (3/4" spacing)

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NO.	DATE	REVISIONS	BY	CHK	APP'D
E	05-02-24	CONCEPT DRAWING REVISED PER COMMENTS	JRF	SAH	
D	03-19-24	REVISED ADDRESS	SAH	SAH	
C	03-14-24	CONCEPT DRAWING REVISED PER COMMENTS	RNV	SAH	
B	03-05-24	CONCEPT DRAWING W/ TOWER ELEVATION	RNV	SAH	
A	02-08-24	CONCEPT DRAWING	SAH	SAH	



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Name	TTA-SA-SR-16-32	TTA-ESS-SR-2
Description	SA Single Branch Redundant Amp TTA	ESS Single Branch Redundant Amp TTA
Test Port Coupling (Test In to Antenna In)	30 dB +/- 2 dB	30 dB +/- 2 dB
Test Port Coupling Flatness	≤ 0.25 dB	≤ 0.25 dB
Internal Termination Accuracy	< 0.1 dB difference int to ext termination	< 0.1 dB difference int to ext termination
Connector type (all RF ports)	4.3-10 female or N-female	4.3-10 female or N-female
Connector Spacing (X and Y planes)	2.0" center to center	2.0" center to center
Enclosure	NEMA 4X Aluminum (epoxy painted)	NEMA 4X Aluminum (epoxy painted)
Size Maximum (H x W x D)	Approximately 8.0" x 7.5" x 4.25"	Approximately 8.0" x 7.5" x 4.25"
Weight Maximum	11 lbs.	11 lbs.
TTA Unit Factory Test Record	Electronically Stored	Electronically Stored
Preselector	794 – 824 MHz	794 – 824 MHz
Frequency Range	> 60 dB @ 762 – 776 MHz	> 60 dB @ 762 – 776 MHz
Stopband Rejection (low side)	> 60 dB @ 851 – 2500 MHz	> 60 dB @ 851 – 2500 MHz
Stopband Rejection (high side)	> 60 dB @ 851 – 2500 MHz	> 60 dB @ 851 – 2500 MHz

Control Unit Specifications		
Gain (with 0 dB of attenuation)	≤ -5.0 (Ctrl section -6.0 dB/Dist section 1.0 dB)	≤ -10.0 dB
Noise Figure	≤ 12.5 dB (Ctrl section 12.3 dB/Dist section 17.5 dB)	NA
Type of Amplifier	Quadrature Coupled	NA
Amplifier Redundancy	None	NA
Amplifier Output 3rd order IP	> 45 dBm	NA
RF Port Return Loss	> 15 dB	> 15 dB
Adjustable Attenuator Type	Electronic	Electronic
TTA Connectors Type (rear facing)	4.3-10 female or N-female	4.3-10 female or N-female
TTA Connector Spacing (X-Y planes)	1.25" center to center minimum	1.25" center to center minimum
Number of RX Output Ports	16 expandable to 32	2
RX Out Connectors Type (rear facing)	BNC-Female	N-Female
RX Out Connector Spacing (X-Y planes)	0.850" center to center minimum	1.625" center to center minimum
RX to RX Port Isolation	> 20 dB	> 20 dB
External Filter Ports	Yes	Yes
External Filter Port Connector Type	BNC-Female	BNC-Female
Test Port In Connector Type (front facing)	BNC-Female	BNC-Female
ESD Protection	IEC61000-4-2 level 3	IEC61000-4-2 level 3
Grounding Studs	Double Stud, M8 (3/4" spacing)	Double Stud, M8 (3/4" spacing)
Status Indicator	Front Panel LCD and bi-color LED	Front Panel LCD and bi-color LED
Alarm Contact	Form-C	Form-C
Ethernet Port	On rear panel (includes SNMP)	On rear panel (includes SNMP)
Power Requirements	90 – 240 VAC 50/60 Hz (or) -48 VDC	90 – 240 VAC 50/60 Hz (or) -48 VDC
Operating Temperature Range (full Specs)	0°C to +50°C (Non-Condensing Humidity)	0°C to +50°C (Non-Condensing Humidity)
Enclosure	Standard EIA 19" Rack Mounting	Standard EIA 19" Rack Mounting
Size Maximum (H x W x D)	3.5" (2 RU) x 19.0" x 16.5" with filters	3.5" (2 RU) x 19.0" x 16.5" with filters
Control Unit Factory Test Record	Electronically stored	Electronically stored
Weight	< 15 lbs.	< 15 lbs.

**PRODUCT FAMILY PART NUMBERS**

TX RX Systems Model Numbers	Motorola Model Numbers	Description	Power Requirement
440-030221	DS440030221	Tower Top Amplifier w/4.3-10 RF connectors	NA
440-034392	DS440034392	Tower Top Amplifier w/ N-Type RF connectors	NA
440-030222	DS440030222	Control Unit, C&DU, 16 RF output ports, N TTA connectors	1 AC Supply
440-037644	DS440037644	Control Unit, C&DU, 16 RF output ports, 4.3-10 TTA connectors	1 AC Supply
440-032963	DS440032963	Control Unit, C&DU, 16 RF output ports, N TTA connectors	2 AC Supplies
440-037643	DS440037643	Control Unit, C&DU, 16 RF output ports, 4.3-10 TTA connectors	2 AC Supplies
440-030677	DS440030677	Control Unit, C&DU, 32 RF output ports, N TTA connectors	1 AC Supply
440-037642	DS440037642	Control Unit, C&DU, 32 RF output ports, 4.3-10 TTA connectors	1 AC Supply
440-032965	DS440032965	Control Unit, C&DU, 32 RF output ports, N TTA connectors	2 AC Supplies
440-037641	DS440037641	Control Unit, C&DU, 32 RF output ports, 4.3-10 TTA connectors	2 AC Supplies
440-030679	DS440030679	Control Unit, C&DU, 16 RF output ports, N TTA connectors	1 DC-DC Converter -48 VDC
440-037640	DS440037640	Control Unit, C&DU, 16 RF output ports, 4.3-10 TTA connectors	1 DC-DC Converter -48 VDC
440-032967	DS440032967	Control Unit, C&DU, 16 RF output ports, N TTA connectors	2 DC-DC Converters -48 VDC
440-037639	DS440037639	Control Unit, C&DU, 16 RF output ports, 4.3-10 TTA connectors	2 DC-DC Converters -48 VDC
440-030683	DS440030683	Control Unit, C&DU, 32 RF output ports, N TTA connectors	1 DC-DC Converter -48 VDC
440-037638	DS440037638	Control Unit, C&DU, 32 RF output ports, 4.3-10 TTA connectors	1 DC-DC Converter -48 VDC
440-032969	DS440032969	Control Unit, C&DU, 32 RF output ports, N TTA connectors	2 DC-DC Converters -48 VDC
440-037637	DS440037637	Control Unit, C&DU, 32 RF output ports, 4.3-10 TTA connectors	2 DC-DC Converters -48 VDC
440-030684	DS440030684	Control Unit, CU, 2 RF output ports, N TTA connectors	1 AC Supply
440-037636	DS440037636	Control Unit, CU, 2 RF output ports, 4.3-10 TTA connectors	1 AC Supply
440-032970	DS440032970	Control Unit, CU, 2 RF output ports, N TTA connectors	2 AC Supplies
440-037635	DS440037635	Control Unit, CU, 2 RF output ports, 4.3-10 TTA connectors	2 AC Supplies
440-030685	DS440030685	Control Unit, CU, 2 RF output ports, N TTA connectors	1 DC-DC Converter -48 VDC
440-037634	DS440037634	Control Unit, CU, 2 RF output ports, 4.3-10 TTA connectors	1 DC-DC Converter -48 VDC
440-032971	DS440032971	Control Unit, CU, 2 RF output ports, N TTA connectors	2 DC-DC Converters -48 VDC
440-037633	DS440037633	Control Unit, CU, 2 RF output ports, 4.3-10 TTA connectors	2 DC-DC Converters -48 VDC
89-030691	DS89030691	Preselector, 794 – 824 MHz, 3 MHz Bandwidth*	NA
89-030692	DS89030692	Preselector, 794 – 824 MHz, 6 MHz Bandwidth*	NA
89-030693	DS89030693	Preselector, 794 – 824 MHz, 9 MHz Bandwidth*	NA
89-030694	DS89030694	Preselector, 794 – 824 MHz, 15 MHz Bandwidth*	NA
89-030695	DS89030695	Preselector, 794 – 824 MHz, 18 MHz Bandwidth*	NA

\*Note: When ordering a preselector please provide the desired center frequency.

**TX RX Systems Inc.**

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DOUGLAS COUNTY  
SHERIFF  
Dennis M. Weady

	ANTENNA DETAILS
	DECKERS 8008 Y CAMP RD. SEDALIA, CO 80135

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